

with patents to Dangelmayer in view of Aslan being cited as evidence in support of this conclusion. Claim 9 stands rejected under 35 U.S.C. §103(a) with Lewis and Aslan in view of Esper being cited in support of this conclusion.

The interview held on March 4, 2004 with Mr. Nguyen, Mr. Sircus, Mr. Epstein, and the undersigned is acknowledged. At the interview, it was agreed that the proposed amendments to the claims (incorporated in the claims presented herein) will overcome the rejections based on a combination of Lewis and Aslan.

At the interview, it was shown that the inventor is the first to recognize that an electrostatic discharge (ESD) event is rich in high frequency content and that the effects of such a discharge can affect operation or reliability of a wide variety of electronic equipment located in proximity to or even far removed from the location of the ESD event. As discussed at the interview (a summary of the interview is contained in the interview summary record and in the papers supplied by the inventor), and as discussed in prior responses, ESD events may include frequency components in the gigahertz range which is within the operating ranges of many modern electronic devices. Heretofore, such high frequency content was not recognized as being of concern.

As was also discussed at the interview, due to the

electrically isolated "plastic" environments that many people now work in, static electricity can build up on the person and will have no readily available ground path to escape from the person. Thus, a person may build up a substantial charge of ESD while that person carries out a task, and the charge of ESD may suddenly discharge in an ESD event that may have serious consequences. As also discussed at the interview, since many work stations are connected to a ground system that may be common to all work stations, an ESD event at one station may have consequences and effects at other stations or at main locations such as hubs, routers and servers. Again, the present inventor is the first to recognize this effect caused by the sharing of a ground system. No-one else has recognized this problem.

As was discussed at the interview, present understanding of the ESD problem directs people to the single touch solution of the problem. The single touch solution is epitomized by the Lewis patent disclosure. Most people in the art understand that a person can build up an ESD charge as they walk across a carpet or the like, and this charge should be dissipated before the person touches electronic equipment, such as a computer. Thus, the art has used the touch pad approach shown in Lewis for the person to touch a grounded contact before the person touches another device in the hopes that this touch will discharge the ESD charge on the person before the person touches the electronic equipment.

Not only does this walk-up touch fail to account for the high frequency content of an ESD event, it fails to account for a common ground that may be present among several devices. It also fails to account for the continued build up of electrostatic charge that can take place with on-going normal activities and the related very high frequency content possible in subsequent discharge events.

For these reasons previously stated reasons concerning damage and disruption due to propagated high frequency noise, applicant has included an inductor element in a circuit that is used to control ESD events. As was shown at the interview, including an inductor element in a circuit path can reduce the current by a factor of 1000 at a frequency in the gigahertz range over a circuit that has only a resistor element.

No-one else has: (1) recognized that ESD events are rich in high frequency content on all portions of the ESD waveform; (2) recognized that such high frequency content is a problem; (3) suggested a solution to this unrecognized problem; or (4) suggested an embodiment of this solution. Still further, no-one else has: (1) recognized that an ESD event in one device may affect another device via a ground system that is common to both devices; (2) suggested a solution to this unrecognized problem; or (3) suggested an embodiment of this solution.

Accordingly, the systems and methods defined in applicant's

claims that include the above-mentioned solutions and embodiments are patentable because there is no disclosure in the prior art, especially the prior art of record in this case, suggesting or teaching either the problems or the solutions to such unrecognized problems or the embodiments of these solutions as defined in applicant's claims.

Specifically, the Lewis patent was discussed at the interview and has been previously extensively discussed and does not have any disclosure suggesting or teaching the above-discussed problems or solutions or embodiments of the solutions as defined in applicant's claims. The Lewis patent has no inductor element and does not even discuss a ground system, let alone the specifics mentioned above. Thus, the Lewis patent does not have any disclosure rendering applicant's claimed invention unpatentable.

Further, the main goal of the Lewis patented device is to minimize instantaneous charge transfer and hence any associated energy, Lewis does not even consider the possibility of intensive high frequency energy.

Furthermore, the touch pad disclosed by Lewis is a definite-purpose item which a user must take a special action to use and is concerned with walk up high voltage (i.e., it three resistor 30,000 volt design and claims). As discussed at the interview and as previously discussed, applicant is claiming continued contact

in the normal course of work activities.

With further regard to the Lewis patent, it was discussed and demonstrated by construction of a model at the interview that Lewis is designed for the high voltage (such as 30,000 volts) walk up or initial contact case, and that the operator must take a definite action apart from normal work activities and before such work activities to touch the hemispherical shaped pad which also requires even additional space such as  $\frac{1}{2}$  inch or more for a high voltage insulated mounting platform. It was demonstrated at the interview that the Epstein design is such that the ESD contact surface is integrated into elements that are used during the course of normal work activities. In this manner, a multiplicity of discharge events take place in the normal course of work activities. No-one else has recognized that, due to today's clothing and essentially insulated and plastic work environments, convenient ESD discharge repeatedly and without requiring any special movements or thought by a worker during the course of normal work is important to prevent the build up of catastrophic charges.

Since it was agreed at the interview that the Lewis patent does not render applicant's claims unpatentable, and the Lewis patent has been extensively discussed in prior responses, no further discussion of the Lewis patent will be presented.

With regard to the Aslan patent, it was discussed at the

interview that this patent is directed to continuous microwave RF and has nothing whatsoever to do with ESD. RF and ESD are two entirely different phenomena and one skilled in the art would not, without the exercise of invention, use the teaching of RF to solve a problem in ESD. Since there is no disclosure in the Aslan patent suggesting that the teachings associated with a meter to measure the amount of RF energy at a specified location at a specific time can be used to control an ESD event, there is no disclosure in the Aslan patent that can be used to base a conclusion that applicant's claims are unpatentable. Since it would be invention, in and of itself, to extend teaching associated with metering the amount of RF energy incident on a chosen location into the field of ESD event control, absent disclosure teaching such extension, the combination of Lewis and Aslan cannot be made.

Since it was agreed at the interview that the Aslan patent does not render applicant's claims unpatentable, and that a combination of Lewis and Aslan does not render applicant's claims unpatentable, no further discussion of the Aslan patent will be presented.

With regard to the remaining references cited in the Office Action, it is noted that the Dangelmayer patent is cited for its disclosure of a headphone device and is combined with the Aslan patent. Again, there is no disclosure in either of these patents

suggesting that a combination of a meter used to measure RF energy with a headphone device can control the ESD event or that such a combination will solve a problem with ESD events that contain high frequency components. Certainly, there is no disclosure in either of these patents suggesting the embodiments defined in applicant's claims. Therefore, applicant's claims should be considered as being patentable over the disclosures of Dangelmayer and Aslan.

The Esper patent is cited for its disclosure of a transistor and is combined with Lewis and Aslan. Furthermore, the Esper patent is not related to ESD. The Esper patent cites a transistor used to light an LED in response to a minute long-term biological wave, and does not affect the wave. Since it would be invention, in and of itself, to extend teaching associated with detection of low voltage biological wave and lighting a light into the field of active ESD event control, absent disclosure teaching such extension, the combination of Esper, Lewis and Aslan should not be maintained.

Since applicant is not claiming a transistor, per se, and since it was agreed that applicant's claims are not rendered unpatentable by a combination of Lewis and Aslan, then combining a transistor with the Lewis and Aslan disclosures does not render applicant's claims unpatentable.

The Johnson patent is cited for its disclosure of an

electrical plug. Again, there is no disclosure in any of the patents suggesting that the grounding accessory disclosed in Johnson could be or should be combined with Lewis and Aslan. Therefore, such a combination should not be maintained. However, even further, since it was agreed that applicant's claims are not rendered unpatentable by the combination of Lewis and Aslan, then adding the accessory disclosed in Johnson to this combination does not render applicant's claims unpatentable. There is no disclosure in the Johnson patent of the problem or the solution or the embodiment of that solution as contained in applicant's claims. Therefore, even adding the disclosure of the Johnson patent to that of Lewis and Aslan, albeit improper, does not render applicant's claims unpatentable.

It is also noted that since Claims 50 and 51 have been allowed, no discussion will be directed to these claims.

It is also noted that the specification as filed fully supports the claims as now submitted. For example, the background section of the specification discusses the problems associated with buildup of static electricity due to a person performing a task, and to control the ESD events using an ESD contact element that will be contacted by a user on a periodic or continuous basis (see, e.g., Abstract, page 3, lines 1+, page 9, lines 19+, page 10, lines 2+, page 12, lines 19+, page 13, page 17, lines 5+, lines 2+ as well as page 27, lines 6+ and page 36, lines 6+).

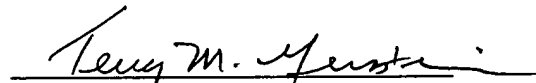


Further, the high frequency content of an ESD event is discussed in several places in the specification, see e.g., page 14, lines 4+. Furthermore, the specification discusses the problems associated with interconnected equipment (see, e.g., page 10, lines 8-9, lines 13-15 and lines 21+, page 11, lines 2+). Distributed inductance in a ground system is known to those skilled in the art, and thus, the limitations directed to this feature will be understood as being supported in the specification by those skilled in the art.

Therefore, the claims as now submitted should be allowed.

In view of the foregoing amendments and remarks, as well as the agreement reached at the interview, it is believed that this application is now in condition for allowance. Accordingly, review and allowance are requested.

Respectfully submitted,

  
Terry M. Gernstein